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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,890	06/05/2007	Frank Duvinage	095309.57817US	8715

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CROWELL & MORING LLP
INTELLECTUAL PROPERTY GROUP
P.O. BOX 14300
WASHINGTON, DC 20044-4300

EXAMINER

TRAN, BINH Q

ART UNIT	PAPER NUMBER
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3748

MAIL DATE	DELIVERY MODE
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11/24/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/581,890	Applicant(s) DUVINAGE ET AL.	
	Examiner BINH Q. TRAN	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the amendment filed July 08, 2009.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang et al. (Liang) (Patent Number 6,363,771) in view of Ott et al. (Ott) (Patent Number 5,763,771).

Regarding claims 9, 16, and 19-20, Liang discloses an exhaust gas purification system and method for a motor vehicle having a predetermined maintenance interval, comprising: a reducing agent storage tank (e.g. 12) for storing a reducing agent intended for exhaust gas purification, wherein the reducing agent storage tank is configured to have a capacity (Volume of the Tank) that is at least equal to a level predetermined (Amount of the Urea in the Tank) by an assumed reducing agent consumption during the maintenance interval (in light of Applicant's Specification, Paragraph 0008); and wherein said closure device is configured to only be openable during a maintenance operation (e.g. See col. 3, lines 1-67). However, Liang fails to disclose means for preventing a restarting of the vehicle after the vehicle has been switched off if the reducing agent storage tank is emptied.

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Ott teaches means for preventing a restarting of the vehicle after the vehicle has been switched off if the reducing agent storage tank is emptied (e.g. See col. 4, lines 39-67; col. 5, lines 1-36).

It would have been recognized by one of ordinary skill in the art at the time the invention was made, that applying the known technique of using means for preventing a restarting of the vehicle after the vehicle has been switched off if the reducing agent storage tank is emptied of the vehicle as taught by Ott to the exhaust system of Liang, would have yielded predictable results and resulted in an improved system for preventing the damage to the catalytic converter in the exhaust gas system of the vehicle, so as to further improve the performance of the engine and the efficiency of the emission system. (See “KSR Int’l Co. v. Teleflex Inc., 82 USPQ2d 1385 (U.S. 2007)”).

Regarding claims 10, Liang further discloses wherein the reducing agent storage tank has a closure apparatus (e.g. 14, 20, 40) which is openable for refilling purposes, the closure apparatus being configured to protect against being opened other than during a maintenance operation (e.g. See col. 3, lines 1-67).

Regarding claim 11, Liang further discloses wherein the reducing agent storage tank has a closure apparatus which may be opened for refilling purposes, the closure apparatus being configured to protect against being opened other than by authorized persons (Obvious for all the closure apparatus) (e.g. See col. 3, lines 1-67).

Regarding claim 12, Liang further discloses wherein the reducing agent storage tank has a closure apparatus which may be opened for refilling purposes, the closure apparatus being

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configured to protect against being opened other than after the maintenance interval has elapsed (Obvious for all the closure apparatus) (e.g. See col. 3, lines 1-67).

Regarding claim 13, Liang further discloses wherein said system is provided with components for level monitoring for the purpose of monitoring the quantity of reducing agent that is present in the reducing agent storage tank, so that a warning signal (e.g. 38, 42, 62) may be sent when the quantity of reducing agent drops below a determined residual quantity (e.g. See col. 4, lines 48-67).

Regarding claim 14, Liang further discloses wherein said residual quantity is determined based on an assumed consumption rate and the remaining running time until the end of the maintenance interval (e.g. See col. 3, lines 1-67).

Regarding claim 15, Liang further discloses wherein said residual quantity is determined based on a measured consumption rate and the remaining running time until the end of the maintenance interval (e.g. See col. 3, lines 1-67).

Regarding claim 17, Liang further discloses wherein the steps of unlocking a closure device for the reducing agent storage tank and refilling the reducing storage tank are conducted during a maintenance operation (e.g. See col. 3, lines 1-67).

Regarding claim 18, Liang further discloses wherein the steps of unlocking (**Refill the Tank**) a closure device for the reducing agent storage tank and refilling the reducing storage tank are conducted after the end of the maintenance interval (e.g. See col. 3, lines 1-67).

Regarding claim 21, Liang further discloses the steps of: determining a consumption rate for the reducing agent, determining a reducing agent consumption quantity which is to be expected by the end of the maintenance interval, and sending a warning signal if the expected

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consumption quantity exceeds the quantity of reducing agent in the reducing agent storage tank (e.g. See col. 4, lines 48-67).

Regarding claim 22, Liang further discloses effecting intervention measures to reduce a consumption rate for the reducing agent after a predetermined motor vehicle running distance has been exceeded following a warning signal being sent (e.g. See col. 4, lines 48-67).

Regarding claim 23, Liang further discloses effecting intervention measures to reduce a consumption rate for the reducing agent after a predetermined motor vehicle running distance has been exceeded following a warning signal being sent (e.g. See col. 4, lines 48-67).

Regarding claim 24, Liang further discloses restricting the driving speed of the motor vehicle or the rotational speed of the motor vehicle drive engine is restricted after a predetermined motor vehicle running distance has been exceeded following a warning signal being sent (e.g. See col. 4, lines 1-67).

Regarding claim 25, Liang further discloses restricting the driving speed of the motor vehicle or the rotational speed of the motor vehicle drive engine is restricted after a predetermined motor vehicle running distance has been exceeded following a warning signal being sent (e.g. See col. 4, lines 1-67).

Response to Arguments

Applicant's arguments filed July 08, 2009 have been fully considered but they are not completely persuasive. ***Claims 9-25 are pending.***

Applicant's cooperation in explaining the claims subject matter more specific to overcome the claim rejection is appreciated.

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Applicant's arguments with respect to claims 9-25 have been considered but are moot in view of the new ground(s) of rejection as discussed above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Binh Tran whose telephone number is (571) 272-4865. The examiner can normally be reached on Monday-Friday from 8:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reach on (571) 272-4859. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/BINH Q. TRAN/

Binh Q. Tran

Primary Examiner, Art Unit 3748

November 19, 2009